## **LESSON PLANS: AUSTRALIA**

## Year 1: Number

# 45 MINS



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#### Strand: Number and Algebra

Substrand: Number and Place Value

#### Outcome:

• Represent and solve simple addition and subtraction problems using a range of strategies including counting on, partitioning and rearranging parts. (ACMNA015)

## Introduction to Lesson



#### Teacher Background:

Play video from "Lady Bug Crawl," located in

#### Mathletics Teacher Console > eBooks.

This will initiate the thought process based on a visual for computational learning. Pause during the questions asked in the video.

#### Ask students for further extension:

- Why was it more useful to move 2 lady bugs than just 1?
- Why was the total of 14 the same in both of your number sentences?
- Could you have predicted that? How would the number sentences have been alike and different if 6 lady bugs had crawled from the right to the left?

## ITEMS NEEDED

- ✓ Interactive whiteboard
- ✓ Mathletics teacher login
- ✓ Mathletics student logins
- ✓ Teacher notes from "Lady Bug Crawl"
- ✓ Student handout: Lady Bug Crawl

## C ASSESSMENTS

- ✓ Observation
- Participation
- Reviewing completed Lady Bug Crawl student worksheet.

#### ACCOMMODATIONS/ MODIFICATIONS

- Concept search "number line for addition."
- Students who are having difficulty could be given smaller numbers or asked to find fewer combinations.
- ✓ Manipulatives

### EXTENSION OF LEARNING

- Problem Solving game
- Curriculum activities
- ✓ Live Mathletics Level 1–2



## The Lesson

#### eBook: Lady Bug Crawl

- Hand out the student sheet and have students complete the handout. Give students enough time to brainstorm as many number sentence as possible.
- Display Lady Bug Crawl interactive on interactive whiteboard. Have the students show/share the number sentences they created.

#### Prompt questions:

- How many lady bugs are on each leaf at the start?
- At the end?
- How did the two numbers you started with change?
- Why couldn't both numbers increase?
- Why couldn't both decrease?
- **Reinforcement:** Have the students complete curriculum activities in the Student Console. Go to Addition and Subtraction.
  - Suggested activities are:
    - Adding to Ten
    - Adding to make 5 and 10
    - All about Ten
    - Adding to 10 Word Problems
- Extra-time activity/cross-curriculum activity: Have the students create as many of their own problems using construction paper with bugs or animals as the visual.

## After the lesson

- Have the students journal or share what was learned during this session.
- Ask students to be specific with their examples.
- Students can show/share some of the number sentences they created.
- Discuss what was hard/easy about creating number sentences.



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## **LESSON PLANS: AUSTRALIA**

## Year 1: Patterns

## Strand: Number and Algebra

45 MINS

Substrand: Patterns and Algebra

- Outcome:
- Investigate and describe number patterns formed by skip counting and patterns with objects. (ACMNA018)

## Introduction to Lesson

### Teacher Background:

On your interactive whiteboard, bring up Concept Search from your Teacher Console under the Demonstration tab. Search "Patterns" and click on the first slide. You will notice that there are a few slides in this visual. The screen can be maximized by clicking on the square and arrow icon located at the bottom right hand corner.

Display the first slide and ask the students what they are noticing.

- What are the fruits creating?
- What are the snap cubes creating?
- How are they similar and how are they different?

The next slide shows the patterns with numbers; students can discuss how to complete the pattern. You can use a hundreds chart for prompting. The next two slides use snap cubes. Students can use snap cubes to create their own patterns or follow along with what is being displayed on the slide.

#### Ask students for further extension:

- What other patterns can you create using snap cubes or whatever objects were displayed on the slides?
- Do you see any patterns in the classroom?
- What other objects, words, and/or numbers can you use to create patterns?

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## ITEMS NEEDED

- ✓ Interactive whiteboard
- ✓ Mathletics teacher login
- ✓ Student Mathletics logins
- ✓ Student handouts from eBooks
- Classroom manipulatives
- Computers/tablets
- Maths journals (if implemented by teacher)

## 

✓ Observation

( ) 10 MINS

- Participation
- Reviewing completed worksheets or reviewing journaling responses (if implemented)
- Results from the curriculum activities within the Mathletics Teacher Console

#### ACCOMMODATIONS/ MODIFICATIONS

- Allow students to access manipulatives to help create patterns.
- Encourage students to click on "Something Easier" and "Something Harder" within the Mathletics curriculum activities.

### EXTENSION OF LEARNING

- Complete any Problem Solving games students haven't worked on.
- Curriculum activities
- Explore Rainforest Maths (Year 1) within Mathletics.



Year 1: Patterns

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### The Lesson

## 

5 MINS

#### Centres

• Background for teacher—You can add more centres to the ones indicated below. For the eBook centre, please review which pages you would like the students to complete. Depending on how much work students can get done with each centre, centre rotation can be about every 10 minutes. Groups will vary depending on class size.



- o **Centre 1:** Problem Solving—On the interactive whiteboard, bring up a Problem Solving game from the Demonstrations tab within the Teacher Console. Options are located under Problem Solving and then under Patterns. Have the students work in either a group or pairs to solve the problems. To reinforce their understanding, students record ways they solved the problems in their own journals.
- o **Centre 2**: Computers/tablets—Students are to work in their Student Console to complete Pattern curriculum activities. These activities are located in the Student Console under "Patterns and Algebra." Recommended activities: Simple Patterns, Colour Patterns.
- o **Centre 3**: eBooks—Students are to complete the pre-selected pages. Teachers can place manipulatives to help support various learning styles. Students should pair up and complete the partner activities please refer to pages 5, 7, 11, 14, 16, 20, 22, 25 or 27.
- Extra-time activity/cross-curriculum activity: Have the students create an acrostic poem with the word "Pattern."

### After the lesson

- Have the students discuss some of the patterns they came across.
- What are the different attributes used to create patterns?
- What are some of the strategies they used to solve a problem or complete a pattern?
- Have the students go home and look for patterns in their home or community.



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## **LESSON PLANS: AUSTRALIA**

Year 1: Measurement and Geometry



# 45-50 MINS



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### Strand: Measurement and Geometry

Substrand: Using units of measurement

- Outcome:
- Measure and compare the lengths and capacities of pairs of objects using uniform informal units. (ACMMG019)

## Introduction to Lesson

## () 10-15 MINS

#### Teacher Background:

On the interactive whiteboard, bring up **Concept Search** from the

Mathletics Teacher Console > Demonstrations > Concept Search

Click on **Animated Maths Dictionary**. Enter the term Measure in the Word Search bar. Have a class discussion on things that the students might measure.

Within the Mathletics Teacher Console,

#### Demonstrations > Concept Search > Concept Search

Search for "comparing length". You will notice that there are a few slides in this visual. Slides can be maximized by clicking on the square and arrow icon located at the bottom right hand corner.

#### Display the first slide and ask the students what they notice:

- Which one is longer?
- How do you know?
- Is there something on/in your desk you can compare?

The next slide allows students to explore the classroom for objects. Have the students collect their information and then share it with the class.

## ITEMS NEEDED

- ✓ Interactive whiteboard
- ✓ Mathletics teacher login
- ✓ Mathletics student logins
- Measuring tools
- Computers/tablets
- Maths journals (if implemented by teacher)
- ✓ Manipulatives

## 

- ✓ Observation
- Participation
- Reports from the curriculum activities within the Mathletics Teacher Console.
- Measurement assessment within Mathletics Student Console.

#### ACCOMMODATIONS/ MODIFICATIONS

- Encourage students to click on "Something Easier" and "Something Harder" within the Mathletics curriculum activities.
- Provide students with manipulatives.

## EXTENSION OF LEARNING

- Game under Problem Solving > Balance.
- Curriculum activities.
- ✓ eBooks: students complete set pages.



### The Lesson

## 

#### **Rainforest Maths**

- On your interactive whiteboard, click on the Demonstrations tab within the Mathletics Teacher Console. Click on the Rainforest Maths icon. Click on Year 1 and start off with the "Length" game.
- The game will display bugs and how long they are using various objects. Display the first picture and have the students guess how many paper clips long the bug is. Students can write down their answers on paper. Have a student come up and drag the paper clips to find the answers. Discuss what their answers were and how they determined that number and what strategies they used.
- You can carry on with other bugs by clicking on the "More" bug at the bottom right corner. This activity can be continued as a teacher-led activity, or students can work in pairs on computers to complete it.
- **Reinforcement:** Computers/tablets—Have the students complete curriculum activities in the Student Console. Go to Units of Measurement

#### Suggested activities:

- Everyday Length
- Comparing Length
- Filling Fast!
- Measuring Length with Blocks
- Compare Length
- Extra-time activity/cross-curriculum activity: Pick an object in the school—it could be something in the hallway, schoolyard, or principal's office. Have the students decide on a measurement tool such as counters, snap cubes, or paper clips. Discuss with students some strategies for choosing the correct measurement tool for the item they want to measure. For example, if they want to measure a canteen window, would they use counters, pencils or their hands? Have the student predict the length and then confirm it. Students can record this in their maths journals.

## After the lesson

- Discuss some of the items they measured and what tools they used.
- What objects were harder to measure (straight vs. round objects)?
- Have the student go home and measure the height of a parent, guardian, or sibling using non-standard measuring items such as paper clips, pencils, erasers, etc.





